TOP 5 ARTICLES

Director: Prof Shabir Madhi

Article:
Impact Factor: 6.344

Summary:
We evaluated the effect of maternal HIV infection on trans-placental antibody transfer specific to eight Group B Streptococcus (GBS) surface protein among 81 HIV-uninfected and 83 HIV-infected mother-newborn pairs using a multiplex immunoassay. Significantly lower antibody titres were detected in HIV-infected mothers and HIV-exposed uninfected newborns compared to HIV-uninfected mother-newborn dyads. Maternal HIV infection was also associated with reduced trans-placental transfer of antibodies for Sip (25.8%), Foldase (30.4%), gba0392 (36.5%), gbs0393 (32.9%), gbs1539 (39.2%), gbs2106 (35.7%) and BibA (19.4%), p<0.003. This reduced trans-placental antibody transfer might contribute to increased susceptibility for invasive GBS disease in HIV-exposed uninfected infants.
Article:
DOI: 10.1111/add.13671
Impact Factor: 4.972

Summary:
Exposure to party-themed alcohol advertisements seems to be associated with young people’s initiation of drinking and binge drinking. The party theme predominates in some distilled spirits advertisements but not in the beer advertisements considered in the paper. Restrictions or total bans on party-themed advertisements are worth considering.
Article:  
DOI: 10.1186/s12864-016-3364-0  
Impact Factor: 3.867

Summary:  
Background:  The African Buffalo (Syncerus Caffer) is an important role player in the savannah ecosystem. It has become a species of relevance because of its role as a wildlife maintenance host for an array of infectious and zoonotic diseases some of which include corridor disease, foot-and-mouth disease and bovine tuberculosis. To date, no complete genome sequence for S. Caffer had been available for study and the genomes of other species such as the domestic cow (Bos Taurus) had been used as a proxy for any genetics analysis conducted on this species. Here, the high coverage genome sequence of the African Buffalo (S. Caffer) is presented.

Results: A total of 19,765 genes were predicted and 19,296 genes could be successfully annotated to S. Caffer while 469 genes remained unannotated. Moreover, in order to extend a detailed annotation of S. Caffer, gene clusters were constructed using twelve additional mammalian genomes. The S. Caffer genome contains 10,988 gene clusters, of which 62 are shared exclusively between B. Taurus and S. Caffer.

Conclusions: This study provides a unique genomic perspective for the S. caffer, allowing for the identification of novel variants that may play a role in the natural history and physiological adaptations.
Summary

Background: HIV testing uptake in South Africa is below optimal levels. Community Mobilization (CM) may increase and sustain demand for HIV testing, however, little rigorous evidence exists regarding the effect of CM interventions on HIV testing and the mechanisms of action.

Methods: We implemented a theory-driven CM intervention in 11 of 22 randomly-selected villages in rural Mpumalanga Province. Cross-sectional surveys including a community mobilization measure were conducted before (n = 1181) and after (n = 1175) a 2-year intervention (2012-2014). We assessed community-level intervention effects on reported HIV testing using multilevel logistic models. We used structural equation models to explore individual-level effects, specifically whether intervention assignment and individual intervention exposure were associated with HIV testing through community mobilization.

Results: Reported testing increased equally in both control and intervention sites: the intervention effect was null in primary analyses. However, the hypothesized pathway, CM, was associated with higher HIV testing in the intervention communities. Every standard deviation increase in village CM score was associated with increased odds of reported HIV testing in intervention village participants (odds ratio: 2.6, P = <0.001) but not control village participants (odds ratio: 1.2, P = 0.53). Structural equation models demonstrate that the intervention affected HIV testing uptake through the individual intervention exposure received and higher personal mobilization scores.

Conclusions: There was no evidence of community-wide gains in HIV testing due to the intervention. However, a significant intervention effect on HIV testing was noted in residents who were personally exposed to the intervention and who evidenced higher community mobilization. Research is needed to understand whether CM interventions can be diffused within communities over time.
Summary

Background: Formative programme evaluations assess intervention implementation processes, and are seen widely as a way of unlocking the 'black box' of any programme in order to explore and understand why a programme functions as it does. However, few critical assessments of the methods used in such evaluations are available, and there are especially few that reflect on how well the evaluation achieved its objectives. This paper describes a formative evaluation of a community-based lay health worker programme for TB and HIV/AIDS clients across three low-income communities in South Africa. It assesses each of the methods used in relation to the evaluation objectives, and offers suggestions on ways of optimising the use of multiple, mixed-methods within formative evaluations of complex health system interventions.

Methods: The evaluation's qualitative methods comprised interviews, focus groups, observations and diary keeping. Quantitative methods included a time-and-motion study of the lay health workers' scope of practice and a client survey. The authors conceptualised and conducted the evaluation, and through iterative discussions, assessed the methods used and their results.

Results: Overall, the evaluation highlighted programme issues and insights beyond the reach of traditional single methods evaluations. The strengths of the multiple, mixed-methods in this evaluation included a detailed description and nuanced understanding of the programme and its implementation, and triangulation of the perspectives and experiences of clients, lay health workers, and programme managers. However, the use of multiple methods needs to be carefully planned and implemented as this approach can overstretch the logistic and analytic resources of an evaluation.

Conclusions: For complex interventions, formative evaluation designs including multiple qualitative and quantitative methods hold distinct advantages over single method evaluations. However, their value is not in the number of methods used, but in how each method matches the evaluation questions and the scientific integrity with which the methods are selected and implemented.
1. **INTRAMURAL RESEARCH UNITS**

**Alcohol, Tobacco and Other Drug**

   
   DOI: 10.1111/add.13671

   **Impact Factor:** 4.972


   DOI: 10.2989/16085906.2016.1255651

   **Impact Factor:** 0.716


   **Impact Factor:** 2.197

**Biostatistics**


   DOI: 10.7196/SAMJ.2016.v106.i12.12005

   **Impact Factor:** 1.500

**Centre for Tuberculosis**


   DOI: 10.1186/s12864-016-3364-0

   **Impact Factor:** 3.867

**Environment and Health**


   DOI: 10.1016/j.envres.2016.11.021

   **Impact Factor:** 3.088

**Gender and Health**


   DOI: 10.1080/21528586.2016.1204240

   **Impact Factor:** None

**Health Systems**


   **Impact Factor:** 3.059
  DOI: 10.1016/j.rhm.2016.11.004
  **Impact Factor: 1.221**

**HIV Prevention**
  **Impact Factor: None**

**Non-Communicable Disease**
  DOI: 10.1111/eci.12698
  **Impact Factor: 2.687**

  DOI: 10.1016/j.diabres.2016.11.017
  **Impact Factor: 3.045**

  DOI: 10.1016/j.gheart.2016.10.007
  **Impact Factor: None**

  DOI: 10.1016/j.dsx.2016.12.004
  **Impact Factor: None**

  DOI: 10.1016/S2214-109X(16)30297-2
  **Impact Factor: 14.722**

  **Impact Factor: 0.894**

  DOI: 10.1111/mcn.12408
  **Impact Factor: 3.505**
   DOI: 10.1186/s13690-016-0167-3
   Impact Factor: None

South African Cochrane Centre
   DOI: 10.7196/SAMJ.2016.v106.i12.11374
   Impact Factor: 1.500

Violence, Injury and Peace
   DOI: 10.1016/j.aap.2016.11.020
   Impact Factor: 2.070

   DOI: 10.1080/09637494.2016.1242890
   Impact Factor: None
2. **EXTRAMURAL RESEARCH UNITS**

### Anxiety and Stress Disorders/Risk and Resilience in Mental Disorder

   DOI: 10.1111/adb.12478
   **Impact Factor: 4.547**

   DOI: 10.1007/s13365-016-0503-y
   **Impact Factor: 2.569**

### Developmental Pathways for Health

   DOI: 10.1136/bmjopen-2016-012255
   **Impact Factor: 2.562**

### Herbal Drugs

   **Impact Factor: 1.990**

### HIV/TB Pathogenesis and Treatment

   DOI: 10.5588/ijtld.16.0073
   **Impact Factor: 2.148**

### Respiratory and Meningeal Pathogens

   DOI: 10.1016/j.vaccine.2016.12.029
   **Impact Factor: 3.413**

   DOI: 10.1093/infdis/jiw566
   **Impact Factor: 6.344**
DOI: 10.1093/cid/ciw546
Impact Factor: 8.736

Rural Public Health and Health Transition

DOI: 10.1097/QAI.0000000000001207
Impact Factor: 3.806

DOI: 10.1097/QAI.0000000000001173
Impact Factor: 3.806
3. **GRANT FUNDED RESEARCH**


   **Impact Factor:** 21.372

4. **RESEARCH UNITS WITH NO QUALIFYING PUBLICATIONS**

**Intramural**

- Biomedical Research and Innovation Platform
- Burden of Disease
- MRC Office of AIDS
- MRC Office of Cancer
- MRC Office of Malaria
- MRC Office of Tuberculosis

**Extramural**

- Antiviral Gene Therapy
- Bioinformatics Capacity Development
- Child and Adolescent Lung Health
- Common Epithelial Cancer
- Diarrhoeal Pathogens
- Drug Discovery and Development
- Gynaecological Cancer
- Health Services to Systems
- Human Genetics
- Hypertension and Cardiovascular Disease
- Immunology of Infectious Disease
- Maternal and Infant Health Care Strategies
- Medical Imaging
- Microbial Water Quality Monitoring
- Molecular Mycobacteriology
- Prospective Gastrointestinal Cancer
- Receptor Biology
- Stem Cell Research and Therapy
## 5. GRANTS AWARDED

### SAMRC LIST OF CONTRACTS FOR DECEMBER 2016

<table>
<thead>
<tr>
<th>SAMRC Unit</th>
<th>Funder</th>
<th>Main Funder</th>
<th>Project Title/Description</th>
<th>Contract Value</th>
<th>Rand</th>
<th>Foreign Currency</th>
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<tbody>
<tr>
<td>ATODRU</td>
<td>National Research Foundation (NRF)</td>
<td>National Research Foundation (NRF)</td>
<td>Parental or Caregiver Brief Intervention for Reducing Adolescent Substance Use and Other Risk Behaviour</td>
<td>243 550</td>
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<td>Biostatistics</td>
<td>Tufts University</td>
<td>USAID</td>
<td>Nutrition Capacity Development to Meet National Priorities</td>
<td>1 088 776</td>
<td>$65 000</td>
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<td>Biomedical Research and Innovation Platform</td>
<td>Medical Diagnostech (Pty) Ltd</td>
<td>Medical Diagnostech (Pty) Ltd</td>
<td>Early Markers for Diabetes: Identification of Markers in Human Subjects</td>
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<td>Grants Innovation &amp; Product Development</td>
<td>MRC UK</td>
<td>MRC UK</td>
<td>To facilitate closer collaboration in AMR research between the UK and South Africa.</td>
<td>4 906 152</td>
<td>£360 000</td>
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<tr>
<td>Health Systems</td>
<td>Clinton Health Access Initiative (CHAI)</td>
<td>Clinton Health Access Initiative (CHAI)</td>
<td>Consultancy – To project the HRH need for South Africa in 2025</td>
<td>247 800</td>
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<td></td>
<td>The University of North Carolina at Chapel Hill</td>
<td>The International Aids Society</td>
<td>VUKA Ekhaya: A take home family intervention adherence and reduce behavioural risk among parentally HIV infected youth (CIPHER Grant)</td>
<td>694 125</td>
<td>$50 933</td>
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<td></td>
<td>United Way Worldwide</td>
<td>Lilly MDR-TB Partnership</td>
<td>New models of care for drug resistant TB in South Africa Program</td>
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<td>$112 554</td>
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<td></td>
<td>UNICEF</td>
<td>UNICEF</td>
<td>Progress towards achieving the double dividend of eliminating MTCT and improving maternal and child health</td>
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<td>HIV Prevention</td>
<td>Fred Hutchinson Cancer Research</td>
<td>National Institute of Allergy and Infectious Diseases</td>
<td>HTVN 702 Protocol Funding (PF): Isipingo</td>
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<td>$119 882</td>
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<td>Fred Hutchinson Cancer Research</td>
<td>National Institute of Allergy and Infectious Diseases</td>
<td>NTVN 702 Protocol Funding (PF): Verulam Protocol-Specific Site</td>
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<td>Strategic Research</td>
<td>Department of Science &amp; Technology (DST)</td>
<td>Department of Science &amp; Technology (DST)</td>
<td>South African – Sudan Collaboration for Drug Research and Development from Natural Products and Diagnostic Development.</td>
<td>1 000 000</td>
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